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U.S. Senate

Date: Wednesday, April 14, 2021

Committee on Environment  
and Public Works

Washington, D.C.

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LONG-TERM SOLVENCY OF THE HIGHWAY TRUST FUND: LESSONS LEARNED  
FROM THE SURFACE TRANSPORTATION SYSTEM FUNDING ALTERNATIVES  
PROGRAM AND OTHER USER-BASED REVENUE SOLUTIONS, AND HOW FUNDING  
UNCERTAINTY AFFECTS THE HIGHWAY PROGRAMS

Wednesday, April 14, 2021

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee, met, pursuant to notice, at 10:08 a.m. in room 406, Dirksen Senate Office Building, the Honorable Thomas R. Carper [chairman of the committee] presiding.

Present: Senators Carper, Capito, Cardin, Whitehouse, Merkley, Kelly, Padilla, Inhofe, Cramer, Lummis, Sullivan, and Ernst.

STATEMENT OF THE HONORABLE THOMAS R. CARPER, A UNITED STATES  
SENATOR FROM THE STATE OF DELAWARE

Senator Carper. I was just mentioning the longest title I have ever seen in a piece of legislation, and frankly, one of the most timely and, I think, interesting hearings that we are going to have in some time.

I mentioned that we hope and expect to have our water legislation out on the Floor a week from now, and I think we are going to have a vote today on another nominee out of our committee, the nomination of Brenda Mallory, who came out of committee on a bipartisan vote.

She has been nominated to be the Chair of CEQ, and I understand that somebody told me earlier today that 13 past CEO and EPA appointees, 13 past Republican CEO and EPA appointees, including a former CEQ chair and four different Republican EPA administrators publicly praised and urged her confirmation. They include Bill Reilly, Christine Todd Whitman, Michael Leavitt, Steve Johnson, James Kavanaugh.

She has also been endorsed by, I think, since last we met, by the U.S. Chamber of Commerce. I would ask that you all keep that in mind when we vote later today.

When I was new in the Senate, some of us, I know when I got here, Jim Inhofe and I served together in the House. A couple of others had served, too, Chuck Schumer and I, Dick Durbin and

I, a number of us had served together. One of the people I didn't, and one of the main things I decided early to do in the Senate is to the folks I would never met, didn't serve with in the House, didn't serve with as Governor, I decided to just go have a cup of coffee with them in their offices. So I would ask one after the other, after the other, and make my rounds.

One of the last people I asked this was a guy who sat right behind me on the Senate Floor named Ted Kennedy. I told him what I was doing, getting to know people I didn't know, and he said, "Why don't you come to my hideaway? We will have lunch together." I said, "really?" and he said "Yes." Two weeks later, we were in his hideaway, and we had lunch together.

One of things I asked him then was, I said, "Why is it that all these Republicans, why do all these Republicans want to be your cosponsor on their big bills? Why is that?" He said these words. He said: "I am always willing to compromise on policy, never willing to compromise on principle." Think about it. Always willing to compromise on policy, never willing to compromise on principle.

So, I want to start this hearing thinking about, we are going to have to compromise on surface transportation legislation as we go along, with our colleagues on the committee and the Senate and in the House and with the Administration. But there are some principles I hope we can agree on that we

won't vary far away from, and one of those is that roads, highways, and bridges in this Country are in bad shape. Something needs to be done about it, and we are among the most responsible people for making that happen.

The second principle is that climate change is real. We need to combat it; we need to adapt to it. We need to build back better. We need to focus on resilience with all the extreme weather that we are facing.

The third principle would be that things that are worth having are worth paying for. Some people describe me as a recovering governor. I am also a recovering State treasurer. I was the treasurer of a State with the worst credit rating in the Country when I was 29 years old, and I have always believed that things worth having are worth paying for.

The last principle I hope we can adhere to is those who use our roads or highways and bridges have the responsibility to help pay for them.

Now, there are, in my State, and I am not sure, but in your States, in my State, there are a number of major pay-fors for roads, highways, bridges. Gas and diesel tax, vehicle registration, sales taxes when people buy vehicles, drivers licenses. The 800-pound gorilla forever has been the gas and diesel tax for decades. But I would add to that the times are changing.

I don't think Senator Stabenow is here yet, but about a dozen or so years ago, she and I were at the Detroit Auto Show. She was kind enough to introduce me to Mary Barra, who is, I think, just about to become CEO of GM. One of the GM products that year was selected, I think, as a car of the year, it was a Chevrolet Volt. Chevrolet Volt, interestingly, was a hybrid. It got 38 miles on a charge. Thirty-eight miles on a charge, and after that, it was a traditional hybrid, you are on gasoline, but anyway, it was the car of the year.

That was then, and I went out during recess while we were on break with my oldest son. We went out to buy a vehicle to replace my 2001 Chrysler Town and Country minivan, which has almost 600,000 miles on it. We drove, among other things, a Chevrolet Volt. It gets 300 miles on a charge.

We also drove a Ford Mustang that gets over 300 miles on a charge. Ford is about to put out an F-150 pickup truck, all-electric. I thought I would never see the day that we have electric F-150 trucks, but it is a top-selling vehicle in the Country, as you know.

GM says they are not going to be selling, building and selling any gas or diesel-powered vehicles after 2035. They are going to phase them out. Ford is expected to match or better that. Tesla, we drove some Teslas during the break. One of them is a Y model that gets 350 miles on a charge. There is

another vehicle there that we took a look at that gets over 400 miles on a charge.

Not everybody's into electric. We have folks at Toyota, a whole division of their company that is called Mirai, that is Japanese for future. They are focused on fuel cells, hydrogen and fuel cells. The waste product that comes out of that combination is water that you can drink.

GM and Honda are partnering up on fuel cells as well, and there is a South Korean car company, Hyundai, that apparently has a whole division of their company that focuses on fuel cells. They use hydrogen, and they are expected to use a lot of it in the years to come.

Gas and diesel revenues, our traditional bread and butter for building roads, highways, bridges, maintain them, are not going to dry up and go away overnight. We are told that the average number of years a vehicle has on the road is about 15 years, so we are going to be using gas and diesel for some time, but by less going forward.

I think it was Stephen Stills, Buffalo Springfield, who once sang "something's happening here, just what it is, it ain't exactly clear," but I think it is becoming clear what's going on. We have the opportunity to get ahead of it or to get behind it. We need to track the transportation bill, surface transportation bill, that enables us to get in front of what is

happening here.

The question is, will the next generation of vehicles be built here, will they be designed here, manufactured here, sold here? Or will they be built other places around the world? Will they help us in the battle against climate change, or not?

Will we look this adversity in the face, climate change and all, and instead of just finding despair, find opportunity? My hope is that we will find opportunity, and will seize the day. Part of that is figuring out how to build the surface transportation system of the future, and the ways it affects resilience, climate change, and our needs to move ourselves and our goods around the Country and a cost-effective, safe, and climate-friendly ways.

With that, I would ask unanimous consent that my written statement be inserted for the record. I welcome everybody again. This is, I think, an enormously important hearing and will help us to see the future more clearly and be ready for it. Thank you.

Senator Capito?

[The prepared statement of Senator Carper follows:]



STATEMENT OF THE HONORABLE SHELLEY MOORE CAPITO, A UNITED STATES  
SENATOR FROM THE STATE OF WEST VIRGINIA

Senator Capito. Thank you, Mr. Chairman, for calling this hearing today, and for your ongoing commitment to this bipartisan process for the surface transportation reauthorization bill.

I would also like to thank our witnesses for joining us here today. We look forward to hearing from you regarding the current status of the Highway Trust Fund and recommendations for funding and financing solutions to address the national transportation infrastructure needs of our Nation, many of which our Chairman just spoke about.

Passing a bipartisan surface transportation reauthorization bill continues to be my top priority as the Ranking Member in this committee. Our committee has a strong record of developing these bills in a bipartisan manner, and we are in the process of coming together once again to develop a bill that includes input from both parties and the stakeholder community.

From my perspective, this bill must enable long-term investment in our Nation's roads and bridges, but do so in a fiscally responsible manner, without partisan or lightning rod pay-fors that could sink a bipartisan bill.

We need to give flexibility. I spent the last two weeks traveling my State, as many of us did, talking with our road and

transportation sector. Flexibility is absolutely critical to our States and communities to address their unique transportation needs. The flat areas of Oklahoma are nothing like the mountains of West Virginia, so if you are going to try to put us both in the same bucket, it could be very constraining.

We need to keep the federal interest focused on providing a connected network of roads and bridges to ensure that all communities and the economy can thrive, and also, safety is critical in our bridges.

We need to facilitate efficient delivery of projects so that we can improve the safety and resiliency of our surface transportation system, and we need to drive innovation. Innovation is critical to help pave the way for the systems of the future.

I am willing to work on all of these with all of my colleagues to get these goals into our bill. We need to have that give and take of the bipartisan process to produce legislation that can make it to the President's desk. It will take work from all levels of government and the private sector to meet the Nation's transportation infrastructure needs, and we will have to take an all-hands-on-deck approach.

The Highway Trust Fund, which is the source of funding for Federal surface transportation projects, is once again, as it

has over the last several years, facing a shortfall. This shortfall must be addressed for us to move forward with the bill. We have to work together here to find this bipartisan, long-term solution for the trust fund shortfall. All of us who use our surface transportation system should contribute to its upkeep and expansion. Today, that is not the case with all of the users.

We should consider the unique impacts on certain Americans, including those in rural areas and lower income individuals, and we should try to minimize administrative and cost burdens. We should also try to provide States and other non-federal partners with options to use various financing tools.

This is not an easy problem to solve. I am willing to consider various solutions so that we can discuss how to pay for our Nation's infrastructure.

Since our committee last met, President Biden has proposed a type of pay that I have cautioned against in the past. I am concerned about the effect that the tax increases proposed by the Administration will have on our Nation's growth, particularly coming out of this pandemic.

I look forward to hearing from our witnesses today on an array of solutions and innovative approaches to raise revenue for the transportation needs across the Nation that we can achieve together. I am committed to working with all of my

colleagues both here in the committee and in the Senate in general and across the Capital, and with the Administration to see that we can get there, where we need to be.

Thank you, Mr. Chairman, and I yield the balance of my time.

[The prepared statement of Senator Capito follows:]

Senator Carper. Senator Capito, thanks. Thank you very, very much.

I think now we will have the opportunity to meet and greet our witnesses. We are blessed with this panel today. I had a chance to meet in person a couple of them, so thanking those that are here today in person and those that are joining us virtually. We very much appreciate your participation.

I want to thank our staffs, both the minority and majority side for bringing together an excellent team of witnesses.

Let me start by introducing Joe Kile. Mr. Kile is the Director of Microeconomic Analysis at the Congressional Budget Office, CBO. Mr. Kile, I ask of you, go ahead and please proceed with your statement at this time. Thank you.

STATEMENT OF JOSEPH KILE, PH.D., DIRECTOR OF MICROECONOMIC  
ANALYSIS, CONGRESSIONAL BUDGET OFFICE

Mr. Kile. Thank you, and good morning, Chairman Carper, Ranking Member Capito, and members of the committee. Thank you for inviting me to today's hearing.

I will briefly touch on three points. First is the status of the Highway Trust Fund. Second is some options for spending on our highways, and third is options for generating revenues for the trust fund.

For more than a decade, the government has been spending more each year from the Highway Trust Fund than the revenues collected for it. Those revenues come mostly from taxes on gasoline and diesel fuel, as well as various taxes on heavy trucks. CBO estimates that the balances in both the Highway account and the Transit account of the trust fund will be exhausted in 2022.

The total shortfall over the next ten years is projected to be \$195 billion in CBO's baseline estimates. If the trust fund balances were to be exhausted, the Federal Government would not be able to make payments to States on a timely basis. As a result, States would face challenges planning for transportation projects because of uncertainty about the amount or timing of payments from the treasury.

Turning to spending, the Federal Government spent \$47

billion on highways in 2019. Almost all of that was through grants from the trust fund to State and local governments for capital projects, that is, for building new roads and rebuilding existing ones. As you consider options for reauthorizing surface transportation, you face many choices about how much to spend. Let me illustrate just two of them.

If you want to maintain the current services and condition and performance of the highway system, the government would need to spend at least \$55 billion per year over the next decade. Alternatively, if you want to fund all projects for which the benefits exceed the costs, the government would need to spend at least \$71 billion per year. Of course, the amount of money spent needed to generate those benefits would depend on the quality of the projects selected.

Any increase in spending from the trust fund would require additional income to it. One approach would be to require users of the highway system to bear more of those costs. When people drive, they impose costs they do not pay for. Those costs include wear and tear on roads and bridges, delay from traffic congestion, and the harmful effects of exhaust emissions. The combination of taxes on fuel and mileage that makes users pay for more of those costs would make use of the system more efficient.

If you want to increase revenues by charging users of a

system, you have various options. One option would be to increase the existing taxes on gasoline and diesel fuel. Those taxes have been unchanged since 1993. Increasing them by 15 cents per gallon, as an example, and then indexing them to inflation would raise \$26 billion of revenue for the trust fund in the first year, and that amount would gradually increase over time.

Another option would be to impose new taxes on users of the system. For instance, the government could impose a tax on vehicle miles traveled. Some States already have similar VMT taxes on commercial trucks. CBO recently found that each one cent per mile of Federal tax would raise \$2.6 billion per year if it was levied on all commercial trucks and all roads.

It is important to note that implementing a new tax would require resolving several practical steps to assess and collect the tax, and implementing new taxes would probably be more costly to the government than increasing existing ones. Some approaches would also potentially raise privacy concerns, especially if they were applied to personal vehicles.

New approaches to taxing highways could be assessed through demonstration projects. Such projects could evaluate different approaches to key components of a tax. For instance, projects might apply taxes differently depending on the type of vehicle or the type of road. They might apply taxes differently



depending on the time of day or the location of the travel, and they might assess or collect the tax in different ways.

An alternative to imposing the cost of increased spending on users would be to distribute those costs more broadly. Since 2008, the Federal Government has transferred over \$150 billion from the General Fund to the Treasury to the Highway Trust Fund. You could adopt that approach again. Compared with other options, such as increasing the gas tax, funding highways through broad-based taxes would have the advantage of imposing a smaller burden on low-income households relative to their income.

I will stop there, and I would be happy to answer any questions you might have. Thank you.

[The prepared statement of Mr. Kile follows:]

Senator Carper. Thank you, Mr. Kile. You have given us a lot to think about in a very short period of time.

Our next witness is Jack Basso. Jack, nice to see you up on the screen. Chair of the Mileage-Based User Fee Alliance, a nonprofit dealing with all aspects of mileage-based user feed, Mr. Basso. Thanks for all your work over the years. It is great to have been able to work with you in many venues.

Thank you for joining us today, and you are recognized to present your testimony. Thank you, Jack.

## STATEMENT OF JACK BASSO, CHAIR, MILEAGE BASED USER FEE ALLIANCE

Mr. Basso. Thank you, Mr. Chairman, and members of the committee for holding this hearing on the subject of mileage-based user fees and the Highway Trust Fund alternatives. I am the Chair of the Board of the Mileage-Based User Fee Alliance.

First, I want to recognize the recent proposal from the Biden Administration giving priority to drastically increased infrastructure investment. There is a great need for action, we all agree, I think. In my testimony, I highlight the extent of the needs and look forward to finding ways to fund those needs using a variety of creditable sources.

We at the Alliance have been working to provide education, research, understanding new ways to collect revenue for surface transportation investment. Since 2008, as has been mentioned, revenue to the trust fund has dramatically fallen short.

Thirteen years ago, Congress created two commissions to make recommendations as to alternatives to pay for trust-funded programs. They both concluded that mileage-based user fees would be one of the most effective ways to do that. A total of 20 States over the past five years, with the assistance of the Federal STSFA program, have launched major tests, a variety of pilots, designed to examine the feasibility of conducting mileage-based user fee tests and support the needs, were conducted. A great deal has been learned from them. Let me

just highlight a few.

First of all, the largest-scale personalized public outreach effort in the Country, 300,000 individuals and businesses were surveyed in Hawaii, and 50 percent of the surveyors responded, yielding a wealth of data on public preferences for road user charges. Washington State allowed a year-long pilot of GPS and non-GPS alternatives and gathered a great deal of facts for the participants.

Oregon was the first program in the U.S. in six years to expand its knowledge in inter-operability of many of the items for existing programs. California advanced a 5,000-vehicle pilot that expands the knowledge of rural, tribal, and equity concerns. Minnesota's pilot funding allows for demonstrate the use of broad technologies in mobility areas.

I submitted testimony that includes additional information, but for the sake of time, I pulled these few samples. Dr. Hendren will talk, I know, about the Eastern Coalition and their activities.

I know that the U.S. is not alone in moving to a mileage-based user fee. New Zealand, Germany, and Australia have been advancing programs and pilots of their own for that purpose. At this point, the next step to test the approach to a national pilot. We also strongly believe that additional funds should be made available to the State pilots, clearly to preserve the use

of pay principal, and the need to make changes in our system. MBUFA recognizes the urgency to develop and implement sustainable funding, and we stand by ready to be of assistance and help with a 50-State system pilot.

The next step is to synthesize what the State learned in order to identify the most promising alternatives essential to a national system. As America expands its electric vehicles fleet, there is a need to be able to collect road user charges, and the need will become self-evident.

There is a question of equity, and the pilots, all of them, include analyses of equity issues and what might be done. The Alliance has provided the committee with a number of considerations that we believe will enhance such a national pilot.

In conclusion, we wish to be supportive of Congress in its efforts to advance investment in surface transportation infrastructure. Thank you.

[The prepared statement of Mr. Basso follows:]

Senator Carper. Thank you, Mr. Basso.

I would now like to recognize Dr. Patricia Hendren, the Executive Director of the Eastern Transportation Council. Welcome to our committee, Dr. Hendren, and you are recognized. Please present your testimony. Thank you.

STATEMENT OF PATRICIA G. HENDREN, PH.D., EXECUTIVE DIRECTOR, THE  
EASTERN TRANSPORTATION COALITION

Ms. Hendren. Chairman Carper, Ranking Member Capito, and members of the committee, it is an honor to speak to you today about how we can bring sustainable funding model to our transportation system.

My name is Dr. Patricia Hendren, and I am the Executive Director of the Eastern Transportation Coalition, a partnership of 17 States and Washington, D.C. For more than 25 years, the Coalition has brought together transportation agencies to push innovation and bring solutions to the Eastern Seaboard.

As part of the Surface Transportation System Funding Alternatives Grant Program, we have been investigating the viability of a mileage-based usage fee, or MBUF. The cornerstone of the coalition's work is multi-State pilots, real-world data analysis, and connecting directly to the drivers to figure out the feasibility of replacing the fuel tax with a distance-based approach.

We are talking about MBUF today because we have lost the connection between how much a driver uses the road and how much they pay for it. The concept of a user fee was introduced with Oregon's State fuel tax in 1919. The premise was simple: the more you drove, the more fuel you purchased, and the more you contributed to roads and bridges.

Over the last 100 years, our vehicles have changed dramatically, with vehicles going farther on less fuel and some vehicles using no fuel at all. Though this has been great for our wallets and the environments, the long-term sustainability of the fuel tax is in jeopardy. Our work, as well as pilots and programs around the Country, have shown that a mileage-based user fee is a viable alternative.

The Coalition has conducted five demonstration pilots: three multistate passenger pilots, a multistate truck pilot, and a national truck pilot. We have taken the study of user fees from theory to practice to show how MBUF would function in an actual operating environment and how fuel tax could transition to MBUF over time.

Our research shows that an MBUF implementation strategy must address four key elements. First, public education.

By and large, the public does not realize that we are facing a transportation funding problem. About two-thirds of people we surveyed thought funding was increasing or staying the same, while in fact, it is decreasing. To start a conversation about transportation funding with the public, our work has shown it is essential to first connect quality-of-life benefits, such as safe routes to schools, work, and recreation, to a strong transportation system.

To move forward with a new, sustainable funding approach,



we are looking for federal leadership on a national education campaign to expand knowledge about the importance of transportation and the need for change.

Second, privacy. In all of our pilots, participants expressed early concerns about privacy. However, these concerns fell significantly over the course of the pilot, as people experienced MBUF firsthand. For example, in our recent passenger vehicle pilot, participants who ranked privacy as a high concern dropped from 49 percent down to 15 percent. Our findings, which are consistent with pilots performed around the Country, highlight the value of continuing State and multi-State pilots as a means to address the public's very real privacy concerns.

Third, our Nation is made of urban, suburban, and vast rural areas. To understand what a shift to MBUF would mean for different communities, we conducted an in-depth analysis using State data that showed rural drivers will generally pay slightly less with MBUF than they currently do under the fuel tax. In other words, rural drivers often fare better with MBUF.

A key aspect of MBUF exploration needs to be the expansion of this type of analysis to better understand how a change in how we fund transportation would impact individual households, as well as different socioeconomic groups.

Finally, the motor carrier industry. As heavy users and

payers, truckers must be included in any transportation funding exploration. Our national and multi-State truck pilots brought truckers directly into the MBUF conversation, and showed that using the same MBUF approach for cars and trucks or even the same approach for all trucks can end up penalizing fuel-efficient trucks and lead to other unintended consequences. A viable MBUF system must reflect the complexity of the trucking industry and understand that trucks are not big cars.

We believe any future transportation funding model must address all users and build on the work done to date with the trucking industry.

In conclusion, changing from a 100-year-old fuel tax system to something new will not be easy. At the Coalition, we have designed our multi-State work to show how MBUF affects actual drivers across a variety of real-world environments and to bring forth insights about how MBUF would work on a national scale.

All the work that we have done has been made possible by the grant program that this committee had the wisdom to create as part of the FAST Act. Thank you for your leadership. Continuing to work together, I am confident that we can find a permanent solution that sustainably funds our highways and bridges and keeps our Country moving and thriving. Thank you.

[The prepared statement of Ms. Hendren follows:]

Senator Carper. Dr. Hendren, thank you very much.

Now, we are going to turn to Robert Poole of the Reason Foundation. Mr. Poole, please proceed with your testimony when you are ready. Mr. Poole, you are recognized.

STATEMENT OF ROBERT POOLE, DIRECTOR OF TRANSPORTATION POLICY,  
REASON FOUNDATION

Mr. Poole. Thank you, Chairman Carper, Ranking Member Capito. Are you hearing me?

Senator Carper. Loud and clear.

Mr. Poole. Very good, thank you. And members, thanks very much for inviting me today. I have been doing transportation policy research for more than three decades and have served on a number of committees of the Transportation Research Board. One of the most important of those was in 2005. It was the first serious national look at the long-term viability of fuel taxes, and our report, published in 2006, concluded that they would not be sustainable for the 21st century.

About five years later, Congress, as I think Jack Basso mentioned, appointed the Infrastructure Financing Commission. My colleague at Reason, Adrian Moore, served on that. It clearly, after evaluating about 15 alternatives, concluded that charging per mile driven rather than per gallon consumed was the most viable alternative going forward.

In my testimony, I suggest four ideas for dealing with the sustainability of the trust fund.

First of all, I suggest a Congressional research service, suggested in a very recent bulletin. One short-term fix for the trust fund would be to restore the original user pays, user

benefit principle that started, as Dr. Hendren mentioned, with Oregon's first gas tax in 1919, and that is to put all the money raised from highway users toward the highway program.

That would almost cover the amount that is currently being spent each year on the highways. That would, of course, mean shifting the non-highway programs to the general fund, and doing this openly, rather than through subterfuge, in effect, of finding general fund money and putting it into the trust fund and then taking it out again. Avoid the middleman and do it straightforwardly, which reflects the large general fund commitments planned in the Administration's American Jobs Plan.

My second point is that many needed transportation mega-projects, projects on a billion-dollar scale or more, are not going to be accommodated by a short-term fix for the trust fund, nor in the Administration's plan. There is just simply not enough money there to rebuild the interstate highways and replace many of the major billion-dollar scale bridges that need replacement.

There is an alternate way to bring in private capital, which could be very, very important for these kinds of projects specifically. The interstate highway reconstruction that was called for in the big PRB report that Congress asked for estimated \$1 trillion over the next 20 years. I think that estimate is low, both in terms of cost and in time frame. But a

lot of those projects really need to be done, and hedge funds and other institutional investors would love to invest on long-term revenue-generating infrastructure.

So Congress could open the door, as I suggested in the recent Wall Street Journal piece, to this kind of private investment, but making two changes with virtually no budgetary impact. One would be to expand the current tax-exempt private activity bond program, which has exhausted its \$15 billion original cap, make that much larger. Secondly, make sure that the language makes it clear that these can be financing not only new capacity, which is the focus of the original program, but to fix existing infrastructure that needs to be rebuilt and modernized. That is not at all clear in the current legislative language, and that needs to be made clear.

The other change would be to expand a small federal pilot program that allows only three States to each rebuild one interstate using toll finance. There are a number of States that are really studying this, that Congress could expand that to all 50 States and allow any State that chooses to participate to rebuild all of the interstates, which would make much better sense than simply singling out one, which would be politically very difficult.

Third, I certainly agree with the need. The Reason Foundation is a charter founding member of the Mileage-Based

Users Fee Alliance. I second the comments that our previous witnesses have made about the need for more pilot projects, particularly multistate pilot projects and more projects getting involved long-haul truckers, which travel interstate. There are lots of different issues that need to be addressed.

We have learned a lot from the existing pilots, but most States have not participated in a pilot. As Dr. Hendren pointed out, the actual participation of people, including, in many cases, State legislators, has a powerful educational impact, which we are not going to get a national per-mile system until we get public support across all 50 States in my view. That is critically important.

Also, institutions, what institutions are going to be needed to play key roles? Departments of motor vehicles, perhaps, the International Fuel Tax Agreement among truckers; there are things that need to be explored in a lot more detail than the current pilots have done.

I want to close with one sort of more philosophical point, and that is there seems to be a growing idea that there is a conflict between well-funded and somewhat expanded highway system and the need to combat climate change. I want to call your attention to the long-term nature of both of these problems.

The transition to electricity is going to proceed at a much

faster pace, it appears, given the commitments of auto companies, the Federal Government, and many State governments. At the same time, rebuilding the interstate highway system is not going to happen overnight. If some corridors, particularly truck-heavy corridors need more lanes, you are talking about a long-term prospect here of maybe 15 years before the first major rebuilding can be completed, if the designs were there today, and probably 30 years until the whole systems are rebuilt and modernized.

During this time period, we are going to be electrifying transportation, so the idea that we shouldn't let VMT, vehicle miles of travel, expand because of climate change, I think is a very short-sighted view. Long-term future is going to require more capacity for trucks. Autonomous vehicles are likely to take market share away from short haul flying and onto highways, so we need to think all of these problems long-term together.

That concludes my testimony, and I am happy to answer questions when the time comes.

[The prepared statement of Mr. Poole follows:]



Senator Carper. Thanks a whole lot, Mr. Poole. You have given us a lot to think about here.

Our final witness for this morning's panel is Douglas Shinkle. Mr. Shinkle is the Transportation Program Director within the Environment, Energy, and Transportation Program, the National Conference of State Legislatures.

Mr. Shinkle, thank you for joining us this morning. You are recognized at this time to present your testimony. Please, go ahead.

STATEMENT OF DOUGLAS SHINKLE, TRANSPORTATION PROGRAM DIRECTOR,  
NATIONAL CONFERENCE OF STATE LEGISLATURES

Mr. Shinkle. Chairman Carper, Ranking Member Capito, and distinguished members of the Senate Environment and Public Works Committee, my name is Douglas Shinkle, and I am the Transportation Program Director at the National Conference of State Legislatures, NCSL.

NCSL is the bipartisan organization representing 50 State legislatures and the legislatures of our Nation's commonwealths, territories, possessions, and the District of Columbia. Our mission is to strengthen the institution of the legislature, provide connections between the States, and serve as the voice of State legislature in the Federal Government.

Mr. Chairman and Ranking Member, I would like to take this opportunity to thank you and the committee for your leadership on the important issue of transportation funding and financing, not just with today's hearing, but also on the committee's work on surface transportation reauthorization.

As the previous witnesses have mentioned, revenue flowing into the Highway Trust Fund has proven to be insufficient to support surface transportation programs. As such, since the FAST Act, States across the Nation have worked to research, develop, and deploy new funding mechanisms to meet their own transportation funding needs. We very much thank Congress for

the Surface Transportation System Funding Alternative Program, STSFA, which was established in the FAST Act, and we do urge Congress to build upon that and support a new user fee, formula-based transportation funding mechanism to provide the much-needed investment in the Nation's transportation infrastructure.

I am going to spend a little bit of time just going over some of the most common and notable State transportation revenue options, with a focus on user-based revenue sources. I will just briefly touch on gas taxes, since I think we all have a good sense of how those work and what they look like. I will note, since 2013, 30 States and the District of Columbia have enacted legislation to increase gas taxes. Those gas tax increases have ranged from 2 to 23 cents. Twenty-two States and the District of Columbia have a variable-rate gas tax that adjusts, to some degree, with inflation or prices without regular legislative action.

Let me talk about electric vehicle fees a little bit, because that is something that is certainly on the mind of State legislatures at the moment. That is one widely adopted policy approach to address funding shortfalls related to the declining gas tax revenues is to apply a separate, additional fee for plug-in, electric, or hybrid vehicles. In fact, 28 States have such a fee for electric vehicles, and of those 14 States also assess that slightly lower fee on plug-in hybrid vehicles.

These fees range from \$50 to \$225 per year, and the fee revenue is most often directed toward a State transportation fund. However, at least three States allocate some fee revenue to support EV charging.

Additionally, at least five States structure the additional registration fees to grow over time by tying them to the consumer price index or another inflation-related metric. Along the same lines, State have also been enhancing registration fees for traditional passenger vehicles. Since 2017, at least 12 States have enacted legislation to enhance registration fees for traditional vehicles. California and Utah are among States that recently have indexed their registration fee to CPI, so it will be increasing over time and doesn't necessarily have to go back and be adjusted constantly by the legislature.

With the kind of growing ubiquity of transportation network company services, such as Uber and Lyft, States and local governments have been looking at how to kind of address the impact of those services. At least 11 States and Washington, D.C. have enacted laws creating additional fees for transportation network company rides and fares. Most of these States use these fees to administer TNC regulatory oversight. At least four States, Georgia, Maryland, Massachusetts, and New York, as well as D.C., use some of the fees to in part support transportation projects in their State.

Let's talk a little bit about road user charges, RUC. I am going to refer to it commonly as that. Dr. Hendren and Jack and Bob all kind of weighed in on that to a certain extent. States have been on the forefront of studying road user charging since the early 2000s, when Oregon first started looking into it, and many States are currently exploring RUC systems. Many of these efforts have been supported by the Federal Government via the STSFA Grant Program, Surface Transportation System Funding Alternatives. Fourteen States have been awarded STSFA Grants, although when you kind of calculate the Eastern Transportation Coalition and then RUC West, the reach of the number of States involved, in some ways, is even higher than that.

It is worth noting that there are two operational RUC programs in the Country today. Oregon and Utah both have them. Oregon's has been around for a few years, I think since 2016, now. Utah has just started recently. They are both voluntary and both created at the behest of their State legislatures. Oregon's program is open to any vehicle over 20 miles per gallon, while Utah's is currently open only to electric and hybrid vehicles.

Virginia's RUC program will go live in the summer of 2022. Oregon, Utah, and soon Virginia will allow drivers of plug-in, hybrid, and electric vehicles to not pay the full enhanced registration fees if they participated in a State RUC program.

There has been a lot of legislative interest in this in 2019 and 2020. At least 19 States considered 34 pieces of legislation addressing RUC. Of those, seven States enacted eight pieces of legislation. Thus far, in 2021, there are 12 States considering RUC-related legislation.

I realize I am short on time. I just want to quickly talk about public-private partnerships. There has been some discussion about kind of access to capital and using the free market to kind of help build some of these, especially big projects. Thirty-eight States, Puerto Rico, and D.C. statutorily operate P3s for the transportation sector. State-enabling statutes range from project-specific to limited authority based on project size to broad comprehensive frameworks for P3 agreements.

The most common type of transportation P3 tends to be a tolled facility, but P3s don't necessarily equal tolls, and tolls don't necessarily equal P3s. In other words, owners of the road, a State DOT or a local government, could build a job the old-fashioned way or have a private contractor do the design build, and then the DOT can charge the tolls themselves.

States have undertaken non-toll P3 projects with their private partners, such as bundling bridges in Pennsylvania and transit projects in Maryland. Colorado, Louisiana, and Virginia are some of the States known for having a robust P3 State

structure and project portfolio.

So, with that, I want to wrap up and just say we applaud Congress for taking this initial step to examine professional methods to ensure sufficient and stable long-term Federal transportation funding and encourage continued outreach to States to develop and shared long-term vision for funding and financing surface transportation systems that will enhance the Nation's prosperity and quality of life for all Americans.

Thank you very much for having me.

[The prepared statement of Mr. Shinkle follows:]

Senator Carper. Mr. Shinkle, thank you, and thanks to all of our witnesses. I don't know about the rest of my colleagues here and joining us virtually, but I think this is fascinating stuff. I am sitting here thinking about Dwight Eisenhower and his leadership, which got us started on the interstate highway system. Transformational for our Country.

We are on the cusp of another transformational change in the way we not just build our roads, highways, bridges, build back better, also in the face of climate change and do so at a time when we are trying to figure out how to pay for this stuff and in ways that make sense and are acceptable politically and just make good common sense economically, too.

Our staff has just given me a list of names here in order of recognition, and this may change a little as people pop up virtually. I am going to lead off, followed by Senator Capito, Senator Cardin, Senator Inhofe, and if he returns, Senator Whitehouse, Senator Cramer, and Senator Lummis. I will just start off, if I could.

First question is, where do you agree? Where do our witnesses agree? Pick a major point or two where you think there is consensus among the witnesses who are here testifying today, and tell us, where do you agree? Just be very brief. Take a minute, no more than a minute for each of you.

Mr. Kile, where is there consensus? Where is the common



ground? Go ahead.

Mr. Kile. I think the thing where there is agreement at this point is that there is a shortfall in the trust fund in the coming years. Most of the other panelists have spoken of policy choices. They are all representing particular positions.

CBO does not have a particular position on what the Congress ought to do, and so I will basically stay silent on other areas of agreement or disagreement. My testimony mainly focused on options for you and your colleagues.

Senator Carper. All right, thank you. Mr. Basso, Jack, where do you see areas of agreement amongst the five witnesses? Go ahead.

Mr. Basso. Thank you, Mr. Chairman. I see a minimum of three areas. Number one, action has to be taken if we are going to be successful in implementing a major and futuristic transportation infrastructure investment program.

Secondly, that the gas tax, and you know better than I do the political reasons why we can't just raise the gas tax, would prove that. The second point is that two commissions and a lot of other study has suggested that per mile costs and travel billing cycle is a way to accomplish this. Take into account the changing mix of the fleet. Electric vehicles will become far more prominent in the near future than we would have thought ten years ago.

I think the last thing is that a national pilot is definitely necessary if the Federal Government is going to engage in this activity, and I think we will, and to accomplish what we can learn and deal with all the attendant issues.

Thank you, Mr. Chairman.

Senator Carper. Thank you, Mr. Basso. Dr. Hendren, where do you see areas of agreement, consensus, amongst the five witnesses, please?

Ms. Hendren. Chairman, I am going to go back to your comments in your opening remarks about not compromising on principle. I think what we keep hearing is the need to get back to the user pay principle, and that came up in everyone's comments.

So I would really focus on that as a big reason why we are here, and the concept of pay for what you use, it resonates. It resonates with the public; it resonates within this room, and outside this room. So that is encouraging, that we can have this transformational change for the future.

What I see is federal leadership, again, thanks to this committee to have that grant program that has built momentum, and that momentum has been remarkable in the last four years. But I do think having continued State-level work is going to be important, again, kind of getting that groundswell of understanding in combination with that federal leadership and a

national education campaign about the importance of transportation. That is why we are all here today, and the need for change. So that is where I see we really are all in lockstep on this topic.

Senator Carper. Great. Thanks, Dr. Hendren.

Dr. Kile, where is the agreement? Where do you see the consensus, please?

Mr. Kile. Did you mean to call on me?

Senator Carper. No. I have gotten out of line here. Mr. Poole, yes, thanks very much. Mr. Poole?

Mr. Poole. There we go. I am on now?

Senator Carper. Yes, you are. Go right ahead.

Mr. Poole. I think we all are in agreement, apart from CBO, that we need to replace per gallon fuel taxes with per mile charges, in some form or another. Secondly, I think we all agree that we need to invest more in our transportation system, for sure, and that the Federal Government has a continued role to play in research and development on the idea of how do we implement per mile charges in a way that is going to work and be affordable and politically acceptable.

I think we all agree that the user pay principle is very important. I think I am the only one that stressed users pay, users benefit as the second aspect of that, but I think there is a remarkable amount of consensus here. Thanks.

Senator Carper. Yes. Thank you very much.

Going to our last witness, Mr. Shinkle, please.

Mr. Shinkle. Yes, it is nice when we can all agree on this. It is one of the fun things about working on transportation.

I would agree. I mean, I think States certainly are aware of the pressures associated with increasing fuel efficiency and more electric vehicles. So they have been already feeling this and trying to grapple with this.

So if the Highway Trust Fund is in trouble, States realize that and they are looking for new solutions. It is good that we all acknowledge that there is an issue.

I do really agree that user fees are something that NCSL continues to support. As Bob alluded to, they also lead to a better system and outcomes in terms of, you are linking, you are using something that can have positive impacts on congestion, what have you.

And then continue to engage with the States, this is so appreciated, bringing in NCSL on all these folks that are doing things out at State and regional, local governments. Continue to hopefully give States some seed money so States can continue to innovate and try different things and try to make sure that we are talking with the public. Because I do really think that any change is really going to need public buy-in, clearly. A

lot of times, having local and State elected officials that are closer on the ground is a good way to kind of seed those efforts and grow trust. Yes, there is a lot of areas of agreement, I think.

Senator Carper. That is great. Mr. Shinkle, thank you. Thanks to all of you. I will just say, the National Governor's Association is multi-faceted, but one of the entities within the NGA is something called Center for Best Practices. It is a clearinghouse for good ideas. I think of the States as laboratories of democracy. Many of us have held State offices as well, and you know this, and we can learn from the States, what they are doing well, and maybe not so well.

All right, Senator Capito, please.

Senator Capito. Thank you, Mr. Chairman. I just want to start out briefly.

We have heard a lot about VMTs and a lot of different acronyms that are used, but I think we understand what the concept of that is.

I want to go back to Dr. Kile just quickly for a clarification question. You mentioned that if the VMT was put into effect at 1 cent per mile, it would generate \$2.6 billion. But previously you had mentioned that over 10 years, the shortfall is \$195 billion. So, we have a big gap here.

My question is, back to Mr. Shinkle, in some of the States'

pilot studies, is a 1 cent per mile, is that a marker that is been used for success here? Because it is not going to generate enough to hit our shortfall at all.

So Mr. Shinkle, I want to ask you that, about the 1 cent per mile. I also want to ask you, there are concerns on privacy. We haven't really heard much pushback on that, and maybe those issues have been sort of laid to rest through some of these State pilot studies. Mr. Shinkle, could you address the privacy issue as well?

Mr. Shinkle. Yes, thank you, Ranking Member Capito. With regard to the mileage charge, let me look real quick. I believe in Utah, it is 1.5 cents a mile and in Oregon, it is 1.8 cents a mile, so somewhere in that range. Most of what the States I have seen talking about it, of course, those are the only two operational programs that are actually charging, so that gives you some sense. Most of the range that I have seen is somewhere in that range, and somewhere in between 1 to 2 cents, so I would say that is a fairly kind of accurate starting point.

With regard to privacy, I think you are definitely absolutely correct that that is going to be one of the big things for the public, kind of perception-wise, to get through is how to address this. Some of the things States have done, I think, are really interesting, so maybe a couple examples.

Oregon, when they established their program back in 2013,

they did work with the ACLU while they were developing that program, and that helps kind of get some buy-in there. A lot of the public feedback that the States that are doing the RUC programs or pilots has found that the more familiar with the driver become with the systems, the more they have less of an issue with the privacy concerns. I am not saying that necessarily addresses all of them.

Another piece is offering options. That is something that California, and I would say Washington and some of these States are doing a lot of work on, digging and studying and looking at like, 10 different payment options. Some of those are like, for example, there are 15 States that do annual or biannual in-person vehicle inspections, essentially. So those 15 States, you theoretically could just do an odometer reading very easily within existing State structure and law, and just have an odometer reading and you are in and out, and there is no impact on your privacy.

Now, the flipside or the downside of that is that if you travel out of State or you live on a large private ranch, where you drive a lot of miles on private roads, you are going to get charged for those miles. So the tradeoff is that having that location information is always going to be really helpful to ensure that you are being accurately charged and being charged as little as possible.

Some of the other things that States can do is that, certainly, I know Oregon and California and Utah have all done things around kind of disaggregating the location information. I know in Oregon they are only allowed to keep that location data for 30 days, and law enforcement has to have a warrant to access it. So there are a lot of things that need to be done.

I think States have taken good steps. I also do think this needs leadership at the local, State, and federal level to continue to talk about this and to try and talk about the challenge that we don't have enough transportation funding.

So those are kind of some of my thoughts. Thank you for the question.

Senator Capito. Thank you. Thank you for your insight there.

Mr. Poole, in your statement, you mentioned that if all that money that was generated from the gas tax was put towards the surface transportation bill, that it would be much closer to meeting the shortfall. Are you referring to the fact that funds from that gas tax are moved over to transit? Is that what you were alluding to? Mr. Poole?

Mr. Poole. Yes, I understand the question. What I was referring to is, if you look at the total amount of revenue from the highway user taxes going into the trust fund, versus the amount spent, there is only a \$2 billion a year gap right now,



according to CRS, between the spending on highways and the revenue from highway users.

Almost all the shortfall is all the non-highway programs. So closing that \$2 billion gap would take a very slow increase in a user tax, which might be more acceptable to highway users if they knew that all the money that they put in was going to be spent to better highways. The rest could be simply paid for out of the general fund, all the non-highway portions.

That would be my suggestion for a short-term fix. It is not going to solve the long-term problem, but it would make the Highway Trust Fund itself solvent.

Senator Capito. Okay. Thank you.

Senator Carper. All right.

Senator Cardin? Senator Cardin, to our witnesses, to our witnesses, Senator Cardin serves as the Chair of the Transportation Infrastructure Subcommittee of this committee and does a great job, and his wing-person, wingman, on that is someone who has chaired this committee before, Jim Inhofe. They are a good team. Senator Cardin?

Senator Cardin. Mr. Chairman, first of all, thank you, and I want to thank all of our witnesses. This panel has been extremely informative.

I sort of share the Chairman and Ranking Member's view that we are looking for revenues that can get bipartisan support and

we can move forward as a Congress. We all recognize we have a shortfall, so I find this panel to be very helpful.

Senator Capito, as I understand, the 1 cent per mile estimate is based upon commercial traffic, which is where the pilots are all headed right now. But as our witnesses have pointed out, if you are looking at replacing the existing gasoline tax, which gives us a lot greater need for revenues, we would be looking at a broader mileage user fee. It would create additional issues that would have to be resolved before we could get to that point.

So in one respect, we are looking at the mileage-based user fees to get us out of the current hole. If we are looking at the long-term impact, then we really do need to have other questions answered before we can do that. One is federalism. How do you impose a national user fee based upon mileage and work with our States, because they use the gasoline as a revenue source? And how do we sort of bring this together under federalism and the interstate use of our transportation system?

I want to sort of challenge on two parts as we move forward, and maybe I will start with Dr. Hendren on this first, and that is, how do you answer the question, if we move towards a mileage-based user fee at the national level, low and middle income families being overly burdened? How do you deal with the fuel efficiency issues, which is one of our major objectives in

all of our policies, is to increase the efficiencies of our transportation system?

Ms. Hendren. Senator, thank you for the question.

I think starting with the first one about the impact that this potential shift in the fuel tax to a distance-based approach could have on different geographic areas as well as socioeconomic groups is work that still needs to be done. I think a really important place that we need to start that conversation is where we are today with the fuel tax as a regressive tax.

What we found, for example, in looking at rural communities versus urban and suburban, is that a lot of rural communities are paying more today under a fuel tax approach. With a shift to a distance-based approach, they would pay slightly less.

Senator Cardin. I understand that more work needs to be done. I really do understand that.

Ms. Hendren. Okay.

Senator Cardin. We are impatient right now, because we have got to act. So if we are going to act in this Congress to do a transformational improvement on our infrastructure, and we need to have revenues, but we don't want to adversely impact on middle and low income, what do we do?

Ms. Hendren. I think the benefit of a distance-based approach versus a fuel tax is you have more policy levers. So,

the way you set your rate, I think, is the answer to the question. You can have one rate that is the same for everyone. You can also look at rates that would vary based on where you live, income level, type of vehicle; there are a lot of options.

Again, that is a benefit of this kind of more transformational way of funding transportation. So I think that is the way to move forward there.

Senator Cardin. How about on the energy efficiency issue? One of the points that was raised was that those who use electric vehicles, yes, they are very much impacting on our transportation system, but they are also a benefit in regards to the impact on our environment, so how do we weight that issue?

Ms. Hendren. I think what we have seen so far is EV owners are actually very willing to be part of a distance-based approach. If you look at the Oregon program, a volunteer program, almost a third of those volunteers are EV owners, so that shows you the choice to be an EV owner is about the environment. They do also want to have roads to drive on, so those issues are not at odds with EV owners.

Senator Cardin. I guess I don't understand a voluntary program. They voluntarily agree to pay money?

Ms. Hendren. You can either pay a registration fee or a cap amount, or you can do the voluntary program. So if you are an EV owner, you are not going to be paying fuel tax today, so

if you opt into the program, you will be paying more.

Senator Cardin. But wouldn't you make the judgement based upon what you think you are paying less money to the government? Wouldn't that be the decision?

Ms. Hendren. Exactly.

Senator Cardin. That doesn't necessarily reward energy efficiency.

Ms. Hendren. It doesn't. But I think the reason I am bringing that up is, there is a concern that moving forward, the distance-based approach will hurt the sale of EV, hurt that transformation of our fleet. So what we are seeing out there in these demonstration pilots is that is not true in the programs.

Senator Cardin. If I wanted to transfer to a electric vehicle, and I do lots of driving, but I am prepared to do that, I am prepared to charge where I need, the charging stations, pay for the battery support that I need, how does this system benefit that decision I am making to help the environment?

Ms. Hendren. The way we have it now, is you would be paying a majority of your operating costs for an EV is that charging. They are not paying for fuel tax, which is what we have been using to fund our roads and bridges.

So if the question is, what is the motivation for the EV owner, it is to support the roads and bridges on which they drive, so you are correct. If they are like, that is not cost-

effective for me, they could choose not to.

But what we are finding is an openness to be part of the solution to have those roads and bridges to drive on. But I think your point about fuel efficiency, that is where our real challenge is right now, as far as the revenue loss from these much more fuel-efficient vehicles.

So I look at Virginia's program as a real example of how to address that revenue loss from fuel efficiency. We have kind of two issues, and they kind of get merged, so I think looking at fuel efficient vehicles and looking at EVs, and this approach can address both of those types.

Senator Cardin. You are absolutely right. The revenue loss is the environmental gain. You have to weigh it.

Thank you, Mr. Chairman.

Senator Carper. Really good questions. One of the issues that Senator Cardin raised was actually addressed in part at a hearing yesterday. He and I sit next to each other on the Finance Committee, as well. He finds it hard to get rid of me.

Our witness yesterday was Commissioner Rettig, the Commissioner of the IRS. One of the issues that I raised with him is for the concern on raising a gas tax, user tax, user fees, our concern is how do we help make sure that lower-income families, at-risk families, don't end up bearing an inordinate amount of burden?

And I asked him too, this question, for the record, I said why don't you see if there is some way that we can provide through the tax system a rebate of some kind to go to families whose income is maybe below the median average in the Country to help make them whole with some assumptions on how much gas and diesel they use? So, we will see.

Okay, Senator Inhofe, you are up, please.

Senator Inhofe. Thank you, Mr. Chairman. Last hearing, I entered into the record an effort to protect the ban on government-controlled interstate rest areas. I know that some of our witnesses, I understand that Mr. Poole probably disagrees with this position, but it is one that we felt pretty strongly about.

I want to enter into the record this time, it is a similar letter. It is signed by stakeholders that we all know, such as the National League of Cities, the National Restroom Association, Energy Marketers of America, and a lot of others, which talks about the value of the private sector investment across the Nation's highway network. I think the rest stops would give the government, if they were government-controlled, an unfair monopoly. So this letter is one that covers that, and I want to have that as a part of the record.

Senator Carper. Without objection.

[The referenced information follows:]

Senator Inhofe. It is kind of interesting. Ben Cardin and I were both elected in the same year, 1986, and we have been dealing with this all these highway bills ever since that time. So we have a lot of seniority on these issues.

One of the interesting things I always like to point out to my friends and witnesses at such hearings is this: most of them are too young to remember this, but I remember one of the biggest problems we had in the Highway Trust Fund is we had too much surplus, and so everyone's trying to rob the surplus.

One of the worst offenders of that was Bill Clinton. I can't remember how many billion dollars was out of that. It took me about two years to get it all back in, anticipating that we would have the problems that we are having today.

One of the unique things about this is, this is a program that everyone agrees with. I can remember a lot of the Republicans who were running for President two years ago were trying to each one be the most conservative, more conservative. One of our people who went back actually was one of the candidates from, I shouldn't say this, but from Kentucky. He got up there, and all the transportation people jumped all over him. You are running for President, and we don't want -- and he said, oh, I wasn't talking about transportation.

See, we have that benefit that people all fall into agreement that we want to have that system. So anyway, I was



glad that this is the first time that I have heard that all of our witnesses came in agreement knowing that there should be a user pay concept.

I have been saying this when it was very unpopular to say this, and now I think it is more popular than it was at that time, so I think we are making some headway in this area. I would like to make sure that there is no one here. What we all agree is, we do need a long-term highway bill to give the States the certainty and predictability. I would assume, if there are any of our witnesses who don't agree with that, say so now. Because I believe that is a concept that we all agree on.

I think also the fact that we are now looking at something on the electric vehicles on paying their fair share, and I just rejoice in the fact that people are talking about that now, and it is popular, and it is very fair.

Now, Mr. Shinkle, I understand that nearly 30 States have passed electric vehicle fees to help pay for the road. I would like to have you elaborate a little bit on, have these revenues been used to invest in roads and bridges? Has it been successful? We are looking at this right now in our State of Oklahoma, and so I would like to have you explore that a little bit on what has been workable in the past.

Mr. Shinkle. Yes, thank you for that question, Senator Inhofe. Twenty-eight States have enacted fees on electric

vehicles and 14 on hybrid vehicles. That money is, except for three States, that money is pretty much going into transportation projects.

Sometimes transportation projects are a little more broadly defined to include a little bit of electric charging stations and things like that. Generally, for the most part, that money is going into the State fund that pays for transportation there. Given that no State, I don't believe, has more than 2 percent or I think even at the most of their personal vehicle fleets that are electric vehicles, the amount of money thus far isn't really substantial.

Now, that is going to start to change, and it is going to become more important. I think every year it is going to become more important, frankly, especially within five to ten years as that kind of bridge until we do figure out if we are moving to a RUC or what are we going to do. But the short answer is there is not necessarily a lot of money there, it is really more of an equity kind of concern at this point. If there is a group of vehicle owners, in many cases, which tend to be but not always are higher income that weren't paying to be part of the system at a time when the system needs more money in.

So that was a lot of the rationale behind that. I am happy to provide more information on how the States have exactly been spending that money in the follow-up testimony, but it is mostly

for State transportation projects, maintenance, and operation, what have you.

Senator Inhofe. For the record, any elaboration on that you can get, that would be very helpful to us. I think this hearing has been very helpful.

The question that we get, one of the differences between witnesses and people sitting at this table is, you guys don't have to run for election. The first thing when we hear a VMT system or one of these other systems, the first thing that comes to me is the questions that people are always asked when we talk about this publicly, the only question they have is, how much is it going to cost me?

Anyone have a good idea on a good answer for that question? No, I didn't think so. All right, thank you very much, Mr. Chairman.

Senator Carper. I would just say to my colleague, as you know, I have talked to a lot of governors and a lot of State legislators, and I know you have too, but those who have in the last decade, not in the last five or six years, who supported increases in traditional user fees in their States have actually been more electable rather than less. It is pretty amazing.

I think next is Sheldon. Senator Whitehouse, please.

Senator Whitehouse. Thank you, Chairman. Thank you to all the witnesses.

I want to pick up on the same topic that we have been talking about, which is how we get electric vehicles to pay a fair share of the use of the road. But I come at it from a slightly different perspective, because I have this Consumer Reports information here that shows the number of States in which what is charged electric vehicles is higher than what is charged internal combustion engine vehicles.

In some cases, it is not a huge difference. It is 40 percent more, 20 percent more, 36 percent more. But in some cases, it is nearly triple. The expectation of Consumer Reports is that these are going to continue to trend upwards with electric vehicles being charged as much as four times what an internal combustion engine vehicle is charged.

So I think that as we address this issue and we address it from an equity point of view, it is going to be important, looking at whatever kind of a highway funding program we put in to make sure that this is not being used as a mechanism to suppress to development of electric vehicles. It is hard for me to see a reason why it should be more.

I don't know if any witness can identify a manner in which an electric vehicle is harder on the highways and bridges than an internal combustion engine-powered vehicle. If these were great big trucks that had extra weight -- my governor, who is now Secretary of Commerce, Governor Raimondo, put an extra toll

for trucks coming through Rhode Island. It worked out; I mean, the truckers didn't love it, but it worked out pretty well in terms of convenience because of EZ Pass, which makes tolling so easy.

I understood that they do put a lot more wear and tear on the roads than regular passenger vehicles. But an electric vehicle, I think, is pretty equivalent to an internal combustion engine vehicle in terms of the wear and tear it puts on the roads. So it doesn't make sense to me why these States, many of which have significant fossil fuel investment in them and fossil fuel activity in the legislature would be charging a higher fee against electric vehicles than they do internal combustion engines, unless they were actually trying to suppress electric vehicles so that we could continue to burn more gasoline and continue to pump carbon dioxide into our atmosphere and continue to pollute, and obviously none of that is a very good thing.

So, I hope as we try to solve this, Mr. Chairman, we will keep in mind that it really would not be appropriate for States to use this predicament that we have right now to pick winners and losers between electric and internal combustion engine vehicles. There is no statement of what the purpose is in any of this, so we will look into it further.

But my surmise would be based on the location of the States and the lack of any apparent justification for charging electric

vehicles more than this has something to do with trying to suppress the growth of electric vehicles. I don't think that is a winners and losers contest that we should be in, and it is not a contest that I think we should allow the States to get into because of all the other collateral costs of suppressing the growth of electric vehicles.

So, that is what I wanted to mention today. We have done highway work in really strong bipartisan fashion before, and I think it really is important that we take care of our roads and bridges and the traditional infrastructure for automobile transport.

But I will be extremely concerned about any proposal that we adopt that allows for this kind of selective choosing of winners and losers and deliberate suppression of consumer choice towards electric vehicles, particularly if we discover that the fossil fuel industry has had its hand in the politics of any of these places and getting those fees to be jacked up to where it costs more to own an electric vehicle than it does to own an internal combustion engine vehicle.

With that, I am happy to yield back the rest of my time, and I look forward to working with everybody to get a good bipartisan bill going on this and continue to develop our infrastructure.

Senator Carper. I think we all share that view; that is

good. One of the things that I mentioned earlier, as Senator Whitehouse said, during the break, one of my sons came home from California, and we just went out and drove all kinds of vehicles. I will say this: those electric vehicles are a lot of fun. They are just a hoot. They have got a lot of torque. He and I both felt like kids at the end; he still is.

All right. I think next is Senator Cramer, please.

Senator Cramer. Thank you, Mr. Chairman. Thanks to all the witnesses, and I agree with a lot of what has been said, largely over the fact that we are unified in the goal. The details will kill us, eventually, probably. In the meantime, I do think there is a lot of common ground. Certainly, Mr. Chairman, to your opening statement, I remain committed to principle while having an open mind to the policies that will get us where we need to get, and I think we are off to a good start right here.

I would like to say, Senator Whitehouse raised an important point, and it is hard to know what any individual or group of States might be doing. Maybe we can get an answer to that in a little bit. But I think a lot of those fees are registration fees. When you break it down to the use fee, it is probably less, not more.

The other thing I would mention, in some of the studies I have seen, at least to this point, the California, UC Davis

study showed that 30 percent of the people who drive an electric vehicle make over \$150,000 a year, and the next 50,000, from \$100,000 to a \$150,000 a year make up another 20 percent. Earlier, we were talking about some of the socializing, what I call social engineering here, with regard to it not hurting people at the lower income level.

Well, electric vehicles so far seem to be driven by people at the higher income level. I don't know that that is relevant, but I think it is worth discussing all these things. It is worth noting.

Also, I appreciated, Doctor, your reference earlier in answer, I think it was to Senator Cardin. There is nothing, no tax hardly more regressive than the gas tax itself. So the idea that a user fee for electric vehicles is going to be worse for lower income people than the gas taxes would be hard, I would be hard-pressed to see that. We could design it that way, I would hope we would avoid that. So there is a lot of opportunity here to bring equity to all of the structures, and that would be, hopefully, the goal.

Also, with regard to that, and I want to get to some of the things that Senator Cardin was talking about when he talked about gas-fueled vehicles. Obviously gas-fueled vehicles emit greenhouse gases, CO<sub>2</sub>. But nothing in the fuel tax, to this point, is designed to address any of that. It is not a punitive



tax. It may look punitive sometimes, but there is not a carbon tax added on to it.

So when we start talking about, I think, Ben's parting comment was the loss of the gas tax is the environment's gain, well, that is true. That is a true statement. We are building roads and bridges and maintaining them; we can't do it with less money. We are trying to find a way to get more money in an equitable fashion.

So I just want to make sure we keep the main thing the main thing when we are talking about transportation infrastructure, and some of the other things, being important, don't get us off the rails here.

I do want to ask Mr. Shinkle a question, because obviously, the focus of this hearing is on the revenue side. But it also addresses, in the description of course, a reference to funding consistency, or sustainability, or funding uncertainty. In the White House's rollout last week, they talked about changing the formula, the Press Secretary referenced a different formula, a grant formula, rather than the traditional formula.

Mr. Shinkle, I would like to know what States might feel about a different type of program. Just as an example, the INFRA Grant Program has existed for over five years. In my State, we have never received one. In the big, wide-open west, I don't feel like setting aside 400 miles of gravel to hook up

our interstates. I don't think that would serve very well.

So just a question, Mr. Shinkle, about the commitment to funding certainty by trading the traditional formula for a competitive bidding process, as per the Press Secretary in the White House.

Mr. Shinkle. I will probably have to be a little bit careful about what I say. I think that I would have to know more about that exact proposal.

But I would say that States are pretty comfortable with existing formulas that are in place to transfer money from the Highway Trust Fund to the States. Anything that would deviate from that and reduce the flexibility for States to be kind of nimble in their States to respond to infrastructure challenges out there is something they might be skeptical of. Otherwise I am afraid I can't answer in any more depth than that, but I could look into that some more with my team, and we can get back to you with a more detailed answer.

Senator Cramer. Thank you. As my time has run out, Mr. Chairman, just again, thank you for a very good hearing, a very good start to this discussion, really the second one. I am keeping my mind open, because I think there is a lot of opportunity.

By the way, I think we ought to go big. I really do. I want to aim high. This is a moment, and this is an opportunity,

and I think there is an opportunity to do exactly that with these people.

Senator Carper. Aim high, there is more room up there. That is good. I said to Adam, who's staff director for the minority, and to Mary Frances, and Rebecca Higgins, I am very pleased with this hearing. I think it is an extraordinary hearing with extraordinary opportunity.

I think next up is Senator Kelly, who has somehow slipped in here, and we are going to yield to him next, and then Senator Lummis, you are next.

Senator Kelly. Thank you, Mr. Chairman.

Dr. Hendren, in your testimony, you discussed the important of taking into account drivers in different geographies when considering options to address the Highway Trust Fund shortfall. In particular, you discussed rural communities where driving far distances is often needed for basic necessities like going to work or visiting grocery stores or accessing health care.

As a result, Arizonans, the State that I represent, living in rural communities often pay for gasoline more often, making them more impacted by a gas tax increase. As Congress considers solutions to fund the Highway Trust Fund, are there any proposals out there which are less costly for residents of rural areas than the gas tax?

Ms. Hendren. Senator, I think you hit the key point

directly on target, which is currently, rural communities are paying more in fuel tax, given the distances they need to drive to get their daily life activities done, as well as the vehicles in which they are driving.

So I think that is the place we need to start, is exactly your comments. If we look forward at a transformational way to have a sustainable funding source, the analysis that we have done so far using State data shows a shift to a distance-based fee will result in slightly less payment for rural communities. So that is a start.

I think how we look and design the rates of that future user-based system need to take into account the different ways people use our roads. So I think that is an opportunity that we have at this new way going forward.

Senator Kelly. What kind of research has been done on user-based fees to date?

Ms. Hendren. Sure. So, what we recently did in several States on the eastern seaboard, is we basically took States and we divided them into different communities and how people move. You have rural communities, you have mixed communities that look rural but are going into the cities, and then you look at what type of vehicles they have, look at how many miles they drive. Then we looked today in fuel tax versus tomorrow in a distance-based fee.

So, doing that data-specific, data-driven analysis has enabled me to go to rural legislatures in North Carolina who are very concerned about this idea for their constituents and say, this is what the data is showing us. I am a data person, so that is where I like to start, because it starts the conversation. When you put the numbers in front of people, it makes them say, okay, maybe the way I thought today was isn't exactly as I thought, so let's talk about tomorrow together. That is the work we have started to go.

Senator Kelly. I appreciate you looking and going to the data. That is near and dear to my heart. Thank you.

Mr. Kile, I have got a couple more minutes here. I want to ask you about how the Coronavirus pandemic has affected fuel consumption and gas tax revenues. The Arizona Department of Transportation recently reported that year over year, State fuel tax revenues were down 13 percent in 2020 compared to 2019, which in turn, has affected funding for many surface transportation projects in Arizona.

Some of this decline was likely due to the initial stay-at-home orders last spring, but long-term telework and virtual schooling have kept drivers off the roads. I am concerned that if these trends continue, the stress placed on the Highway Trust Fund could be more significant than expected.

Mr. Kile, in your testimony, you indicated that it would

require about \$195 billion, I believe, in general fund revenue to cover the Highway Trust Fund shortfall over the next 10 years. Did those calculations take into account these long-term trends that seem to be out there, which were accelerated by the pandemic, more telework, fewer in-person activities, which in turn results in fewer Americans on the roadways?

Mr. Kile. I think the long-run effects of the pandemic and perhaps changes in lifestyle that might occur are still being sorted out. There was obviously a reduction in driving over the course of the last year, relative to recent history.

I know for the trust fund itself, they are still working out exactly the implications of the last year for revenues to that fund, and we would have to get back to you with specifics. We would be happy to do that. But I believe that that is actually not entirely sorted out by IRS.

In terms of longer-run trends, it really does depend on what happens to mileage in the future and the number of vehicle miles in the future, and then also the fuel efficiency or the fuel economy of the vehicles driving those miles.

Senator Kelly. Well, thank you, Dr. Kile, and thank you, Mr. Chairman.

Senator Carper. Thank you, Senator Kelly. And now the moment we have all been waiting for, Senator Lummis.

Senator Lummis. Well, thank you, Mr. Chairman. It is a

great hearing. Thank you for doing it.

Mr. Kile, we know that not all vehicle miles traveled have the same wear and tear on the roads. We haven't had a cost allocation study since 1997. Can you talk about the type of information that Congress needs to get from a more recent study?

Mr. Kile. The cost allocation study is, in fact, quite old, as you noted. I think the basic points about the cost from past cost allocation studies have been that the cost of passenger vehicles is mostly felt through congestion in larger urban areas, and then through the environmental externalities from gasoline consumption. For heavy trucks, it is mostly based on pavement damage from those trucks. I think it would be enormously helpful for the policy community if there were a more recent cost allocation study.

Senator Lummis. Thank you.

Should there be, Ms. Hendren, should there be some sort of a congestion pricing or some other mechanism that could reflect those differences?

Mr. Kile. Well, whether there should or should not is a decision obviously for you and your colleagues. Under the current system, though, consumers don't basically see the costs of their contributions to congestion. We all sit in congested highways, but the users don't bear those costs that they impose on other people.

Senator Lummis. Ms. Hendren, have you seen any formula that reflects congestion pricing?

Ms. Hendren. The work that we are doing in our demonstration pilots, we are exploring if this technology of a user-based fee could also be used as a congestion mitigation approach. The view that we have is our cars are changing, as Senator Carper said, the times are a-changing, our cars are changing, our drivers are changing. So as we change the way that we potentially fund transportation, what other concerns do we have?

So, what we have seen so far, we did a proof of concept looking at cordon pricing around a city to say, could the technology of a distance-based fee handle bringing in different variable prices on time of day or location? And it looks like the technology can, so we need to do more work there. Again, the idea is how can we simplify how people pay for transportation? How can we look at collecting that revenue in a cost-efficient manner?

So, we are using the grants, again, that this committee put in place to really kick the tires on this concept. We have some preliminary finding. I am happy to submit more of our findings when we are finished with them to this committee, but we have a little more exploration to do there.

Senator Lummis. Thank you. We would love to see that when



it is available.

Mr. Poole, I was really pleased to see you advocated for removing the mass transit account from the Highway Trust Fund in your testimony. Is there a user fee model out there that we could apply to mass transportation so highway users are not subsidizing mass transportation, and thereby removing adequate funding from highways and bridges?

Mr. Poole. Thank you, Senator. The problem is that the costs of operating and building and operating and maintaining our transportation system are vastly higher than the amount of revenue that gets generated from passenger fees. In the research community, one idea that is looked at a lot is something called value capture, real estate value capture. For example, in a major city like New York or in Washington, D.C., where you have subway stations, you can actually measure that there is significant increases in the land value of being located within proximity to those stations. But yet that value is captured by the real estate owners, not by the transit system.

By contrast, the systems developed and operated in Hong Kong and Tokyo and other major cities in Japan have built-in value capture as part of the funding and financing mechanism. So the problem is since we haven't done that, and most of these facilities are already built, it is difficult politically to all

of a sudden say, well, you guys have benefitted from real estate value increases. Now we are going to take some of it. But that is a mechanism that actually would generate revenue if we could figure out a way to do it. It is fairly, pretty substantial revenue on an ongoing basis.

Senator Lummis. Thank you for that.

For any of you, has anyone ever looked at a user fee tax on tires? I know that there is some tax on tires for commercial vehicles, but what about passenger vehicles? A user fee on tires, it could be assessed either at the point of sale or earlier in the manufacturing process. That would capture electric vehicles as well as gas vehicles.

Does anyone have any information on that kind of a concept? Has anybody studied that?

Senator Carper. Dr. Kile, do you have any thoughts on that? I am pretty sure there is a federal tax excised on what trucks, large trucks pay on tires, I think. Dr. Kile, is that true?

Mr. Kile. Yes, there is a tax, a federal truck tire tax for commercial vehicles. We have not looked at that for passenger vehicles.

Senator Lummis. Thank you, Mr. Chairman. I yield back.

Senator Carper. All right. Senator Lummis, thanks for those questions.

Senator Capito?

Senator Capito. Thank you, and thank all of you for being here and just, I have a couple comments, and then a quick question.

I think it has been really interesting to see how innovative States have been through pilot projects with the road user fees or the mileage-based user fees. I think that this is something that it seems like we have bipartisan very large interest in this, and it is something that we ought to really consider as we are moving forward. I am encouraged by that.

I would like to, and I am a little puzzled, because I think the Secretary of Transportation in his public statements has not only removed the gas tax increase from a possible revenue source, but also the vehicle miles traveled idea and concept as, they kind of took that off the table rather rapidly, which I was sort of surprised about. So we will have to circle back with that.

One of the things that I think we don't talk enough about, and I am not really sure, obviously, what we are looking here for is enough revenues to meet our needs and to meet not just the needs now, but the needs of the future.

Mr. Shinkle, you talked about public-private partnerships, and that some of that was tolling. We know tolling is very unpopular in a lot of areas of all of our States and is

difficult for State leaders to move forward.

What other ideas, how else can we bring the private sector into this? Obviously, they are the beneficiary, whether you are a car manufacturer, tire manufacturer, refinery, all kinds of different electrical and technical parts of an automobile or a truck. How else can we bring the private sector dollars into this to help us match our public dollar investment? Do you have any other ideas on that? It is a big question. Mr. Shinkle?

Mr. Shinkle. Yes, Senator Capito, thanks for that. I do, and I think, along the lines of P3s and I think it is pretty fair to characterize that public-private partnerships, P3s, are perhaps underutilized in the United States, certainly compared to our comparative Canada, United Kingdom, Europe, et cetera, even Latin American countries. Some of that is kind of a lack of statutory and certainty and having the correct process set up.

Now, having said that, a lot of States have done a lot of great things with regard to P3s, and they have been successful with a lot of projects and delivering projects that have been on time and for less money, and with all of the kind of efficiencies in intellectual and physical capital that the free market and companies have that a State DOT or a State doesn't necessarily have. So I do really think there is a role there for private companies to play in some way.

I think that probably asking someone from industry is the way to get the best answer. But they need some more regulatory statutory certainty. They need some idea that if we submit a big and it goes through and it is accepted, then this project is going to go forward. But as you alluded to, especially when it comes to tolling, that starts getting really difficult. You have to make sure that you have the public buy-in, or else you are going to have this conflation of tolls constantly with P3s, and that makes it difficult.

Now, having said that, there are examples of where you can do P3s, you can have a large project. I think a good example is in Pennsylvania. They are doing 500-plus bridges, smaller bridges. They bundled them together. You bundle a bunch of similar-ish projects together, and by doing that, you achieve a scale. That doesn't involve any tolls, it is just that, you know, it is easier for a private company, perhaps, to replace, repair those 500-some bridges than to have the State DOT do it. They can do it quicker and more efficiently, and you have them bid.

I believe in Pennsylvania, they are using money from their bonding to pay for that. So that is an example of a P3 without a toll. There are other examples out there. There are transit P3s, and a lot of these are just based on availability payments, which essentially means that you did the job correctly, that the

asset is working correctly, and you are meeting these certain metrics. So I think there is a lot there.

I think, along the lines of what Mr. Poole said, too, about, and this isn't necessarily about private, but having just access to capital, too, and things like TIFIA, and having access to capital is important to States, especially for some of these trickier projects. So those are kind of some of my thoughts.

Senator Capito. Thank you. Yes, I think one of the things that you are alluding to here, which is a little off-topic for what we are doing here, but regulatory certainty and efficiency in the regulatory process has got to be a part of this bill. I think that we reached some consensus on that in our last bill two years ago that we passed unanimously out of this committee. But that would certainly help us as we move forward.

I would say anecdotally, the State of West Virginia uses something called GARVEE Bonds, and don't ask me what they stand for, but what they are are basically using future revenues, guarantees of future revenues to pay for the construction of the highway of today. That is where we have to give this long-term certainty to our governors and to our road-builders and to our users that, in five years, you are going to have this amount of money. So you can then sort of pre-fund as you move forward in anticipation of funds coming in later.

So thank you all very much. Thank you, Mr. Chair.

Senator Carper. Senator Padilla is trying to do double duty. He is at two hearings he is in line to ask questions in both of them at the same time, so he is asking questions at another hearing, and when he wraps up there, he is going to join us virtually.

In the meantime, I would like to ask a question of Dr. Kile. I want to give you an opportunity to discuss the estimate of revenues that a 1 cent VMT fee would raise compared to the annual shortfall in the Highway Trust Fund in response to the question that was raised, I think earlier, by Senator Capito. Dr. Kile?

Mr. Kile. So, one of the options that you have is to assess a vehicle miles traveled tax. I think that was just, looking at the State setting for the moment, the shortfall in the trust fund over the next ten years is \$195 billion. That is a 10-year number.

The illustrative number on vehicle miles traveled taxes is \$1.6 billion a year, and that is for a VMT tax that would be imposed on commercial trucks on all roads, all commercial trucks. That is strictly an example both in terms of the base of the tax, the number of vehicles that would be taxed, as well as the amount. All of those are choice variables for the Congress if you go down that road.

Maybe the only other thing I would say about VMT taxes is

that implementing them would take a fair bit of work relative to what we currently have. There are a lot of implementation details that would need to be worked out.

Senator Carper. Okay, thanks.

A couple of comments I might make while we are waiting for Senator Padilla to join us. I oftentimes, my colleagues and I oftentimes come to work on the train. A guy named Biden, he and I used to train-pool together, and even every now and then he still takes the train.

I used to be on the Amtrak Board when I was governor. I served on the Amtrak Board for four years, and we never seemed to be able to raise at the fare box, for Amtrak, money to pay both for operating costs and capital costs in the northeast corridor. I might be mistaken on this, but I don't think I have. March, a year ago, just before we fell into the pandemic, that February or March, may have been the first month since Amtrak was created back in the 1970s where, at the fare box, they were able to pay for, because of ridership growth, they were able to pay for the operating costs in the northeast corridor, and I believe, the capital costs, as well. Ridership was about a quarter of a million people per week, and that was an all-time record.

The idea of saying that we are not going to use any money, and we don't use monies, as I recall, we don't use money out of



the Highway Trust Fund to help underwrite the costs of interstate passenger rail service. We do use about 20 percent of the monies for transit.

Folks who ride transit around our Country, whether it is Delaware, West Virginia, California, Des Moines, those are folks who are not going to be using the roads, highways, bridges. As someone once shared with me, folks were not riding the train if they weren't taking transit. If they were driving the cars in the northeast corridor, we would have to build a bunch of extra lanes of I-95. So there is an argument for both sides, and I will just leave that where it is.

I want to ask our witnesses, any final quick points that you want to make? Dr. Kile, any last closing word? Maybe a question you were not asked that you want to answer, Dr. Kile, real quickly? Thank you.

Mr. Kile. I would be happy to answer anything that you have, but I think I covered the main points that I intended to cover in my oral statement.

Senator Carper. All right, thanks a lot. Jack Basso? Jack, thanks so much for joining us, Mr. Basso, whom I called Jack, for years.

Mr. Basso. Thank you, Senator. I think just one point that we really do need to address, getting both State and national pilots going, and we are going to need additional

funding, which I know you have in the EPW bill, so that is my only additive comment. We really need to move. Thank you.

Senator Carper. All right. Thank you, sir.

Next, Dr. Hendren, please. Maybe one last point you would like to make, or remake.

Ms. Hendren. Thank you. So, I think the topic that hasn't come up as much today relates to motor carriers. I think again, as heavy users and payers of our transportation system, we really need to look at our trucking industry separately from our passenger vehicles as we go forward on a sustainable transportation funding approach.

You all are very aware how diverse and complex and heavily-regulated the trucking industry is. I think at the Coalition, we have done a very good job of bringing them to the table, to the conversation. But I am concerned if we move forward with a user-based approach, it does need to address all users, versus singling out one of our users on the road. So that comment, I just wanted to make sure I had made it clearly.

Senator Carper. I appreciate your making that point. The conversations we have had with the trucking industry, there is great willingness to pay their fair share. They are some of the strongest supporters for making sure that the users pay.

Let's see, Mr. Poole, Robert Poole.

Mr. Poole. Thank you, Senator. I would like to second the

comment from Dr. Hendren, and caution very seriously against singling out the trucking industry to be the place to start. It is really, as their findings have found, it is more complex in a lot of ways than passenger cars. The trucking industry, while participating commendably in some of these new pilot programs, has also just published a big report making the most pessimistic possible assumptions about a truck mileage-based user, well, mileage-based user fees in general.

So there is a lot of persuading still needed and experience needed with the trucking industry. The worst thing that policy could do it to single them out and start saying, we are going to make the trucking industry go first, because that would create a backlash that I think would be very, very damaging.

Senator Carper. Thank you, sir. Mr. Shinkle? Then I am going to recognize Senator Padilla on WebEx. Mr. Shinkle, please.

Mr. Shinkle. Thank you, Chairman Carper.

Two things I would just reiterate that States do appreciate having formulas for funding certainty. So that is one thing to mention. And then I think just continue to partner and ask for the States to participate. This conversation is great. There are a lot of incredible insights that are coming from the Surface Transportation System Funding Alternatives Grant Program, a lot of different things in States. I think it does

work to the advantage of us as a Country at this point, that States are kind of experimenting with slightly different ways of doing things, working with the public, looking at different payment options, and just playing around with what a RUC might look like, as well as collaborating with their neighboring States to figure out about travel going across States.

So just continuing to partner with States, and even more robust funding for STSFA would be nice. I think that is all I would say.

Senator Carper. All right, thanks, Mr. Shinkle.

Now, let me recognize Senator Padilla. Senator Padilla, thanks for hanging in there and joining us. You might be the last Senator to ask a question. Go ahead, Senator.

Senator Padilla. Thank you, Mr. Chair. I will try to be brief. I know it has been a long, very substantiative hearing. I just appreciate the opportunity to raise a couple of points.

The first, for Mr. Kile. Mr. Kile, in your written testimony, you heeded how a road charge system could create a greater burden relative to income for lower-income households. What are some ways that Congress could address concerns of equity in exploring these alternative funding mechanisms and formulas? And we welcome Dr. Hendren's thoughts on the same matter.

Mr. Kile. Sir, you are correct to note that a road use

charge that was uniform would impose larger costs relative to income on lower-income households. In that way, the characteristics of that, I think, are probably similar to the characteristics of the gasoline tax.

As for options, that is really something that I would need to leave to you and your colleagues for ways to ameliorate the effects of that on low-income households.

Ms. Hendren. To add on to my colleague's statements there, I think the key part is today, the fuel tax approach is a regressive tax, as you are aware. So as we move forward, we do have the opportunity of the user-based fee to change how we fund transportation and to be smarter about that.

So I think it is an incredible opportunity that is kind of at our feet that we can grab hold of, and we can make sure that we go forward in a way that doesn't put a higher percentage of household costs on our lower-income households for transportation. Transportation to me is how we create opportunity in our Country, so how can we make sure how we pay for it continues to open up those doors of opportunity.

Senator Padilla. Thank you both. A lot of work to do to address that.

The next and final question is for Mr. Shinkle. In your written testimony, you noted how the Surface Transportation System Funding Alternatives Program has helped 14 States to

explore road usage charge systems. Additionally, 12 States have introduced legislation related to road usage charge so far this year.

In addition to funding, how else can the Federal Government best support States as they continue their critical work to study and pilot road usage charge programs and similar concepts?

Mr. Shinkle. That is a great question. I think, first of all, having a hearing, and thank you very much, Senator Padilla, for the question. I think, first of all, just holding hearings like this and including the voices of stakeholders from the States. I think it would be great to hear from, obviously, Dr. Hendren is here representing the Eastern Transportation Coalition, but perhaps hearing from Oregon and Utah, the States that have the actual operational RUC programs. Your home State of California is doing a lot of really incredible and interesting research, and has been really piloting and looking at a lot of different payment options, which I think will be important to consider.

Washington is doing a lot of interesting stuff; Hawaii was alluded to before. So maybe hearing from some of those States would be another advantageous thing to hear a little bit more about exactly what they are doing, because they can really get into the weeds of exactly what they are doing and what kind of RUC systems they are trying to potentially build.

Senator Padilla. Thank you, and thank you for the response. We have got a lot more work to do, a lot more data to gather.

Thank you, Mr. Chairman.

Senator Carper. Thanks, Senator Padilla.

Well, I think while you were trying to do double duty with the other hearing you are participating in, I mentioned that the States are laboratories of democracy, and they give us the opportunity to find out what works and do more of that, and frankly find out what doesn't work and do maybe less of that.

Anybody else, any of our other colleagues out there on WebEx or virtually somewhere would like to participate?

Okay. I want to again, thank our witnesses. We had both sides, both minority and majority sides of our staffs responsible for putting together our witnesses today. I just want to say, I think you all hit a home run with runners on base, and we thank each of you for testifying.

Almost every day, every week at least, when I am on the platform waiting to catch the train to come down here to go to work, somebody will say to me, I wouldn't want your job for all the tea in China, they say that, and I say really? They would say, yes. And I said, actually, yes, I feel lucky to do what I do. If you think about the opportunities before us here on this committee, we have the opportunity to provide leadership for the

Senate, and I think for the Congress, in dealing with some of our toughest challenges.

One is this pandemic, how to get out of it, how to get our health better and to get through this. We face the challenge of an economy; it is the worst economy we have had since the Great Depression. I think it is getting better, but we still have a long way to go. We have a surface transportation system that is in bad shape, and we can do better than this, and we need to do better than this.

We can actually sort of address all of those, and climate change, terrible adverse weather, extreme weather, that is not getting a whole lot better for us. It is getting a lot worse over time. So we have to opportunity to address all of those, all of those. Not all the responsibility lies in this committee, but a good deal. We have the opportunity, again, to provide some of the leadership that is needed.

Our tradition in this committee is to work across the aisle to work together, and we do that pretty well. We will have the opportunity to demonstrate that next week when our water infrastructure legislation before the full Senate, reported unanimously out of this committee last month, and we hope it will move along nicely.

We are going to take a fair amount of additional input in hearings, and just informal conversations over the next month



and a half. Hopefully before Memorial Day, we will report out a surface transportation bill, and we will do it unanimously, and in a way that will help make sure that we fund the development and improvement of our surface transportation system in a sustainable way and with the kind of resilience that we need, and provide for beginning to build the kind of infrastructure that a lot of us are calling for, including the President to build corridors of charging stations and fueling stations, because those vehicles are coming.

I will close with the words of Mary Barra from about a year ago, the CEO of, not even a year ago, this may be three or four months ago, when we were talking about the future of electric vehicles, and she said I am all in on electric. She said that is where the future is. She said, we have done about as much as we can to improve the internal combustion engine, and we are not going to be able to take a whole lot more. The future is with electric.

I would hasten to add it is not just electric with batteries, but I think the idea of hydrogen, green hydrogen, and doing that in conjunction with fuel cells and creating electricity and water as a waste product. There is great future in that, and a lot of hope and jobs that can be created from it, not just in building the corridors, but actually building the vehicles that will use those corridors and reduce the threat of

climate change to our Country and to our planet.

I love to quote Albert Einstein, and my favorite Einstein is "In adversity, lies opportunity." Lots of adversity here, but also plenty of opportunity.

Another, since we are talking a lot about cars, I just recalled a quote from Henry Ford, who was the father of the Model T. Henry Ford used to say, "if you think you can, or you think you can't, you are right." If you think you can, or you think you can't, you are right. I think we can, and I am really encouraged by the input we have received from our witnesses today.

I very much appreciate the work of our staff in bringing this together today, for all of our colleagues who have participated today. This is, for me, encouraging, and I hope for others, as well.

I have a couple of unanimous consent requests. Can't leave here without asking unanimous consent to submit for the record a report on the economic impact of public transportation investments from the American Public Transportation Association. The report describes the way that transit benefits both transit users as well as road users, who benefit from reduced traffic congestion and traffic safety benefits.

I have actually alluded to this already, but let's make it unanimous consent request as well.

Also, I ask unanimous consent to submit a letter signed by 31 transportation stakeholder organizations on the need for a long-term solution to keep the Highway Trust Fund solvent and in support of inclusion a nationwide program to test out vehicle miles traveled, VMTs, in our next bill. Additionally, several other associations and States that have led pilot programs have shared letters of support and findings from their work. I ask unanimous consent to submit those materials as well.

[The referenced information follows:]

Senator Carper. Let me just turn to my right. Adam, anything else? We are good to go? Mary Frances Repko, majority staff director? Oh yes, thank you, Mary. Okay.

For some final housekeeping, Senators will be allowed to submit questions for the record through close of business on April 28th. We will compile those questions and send them to our witnesses. We would ask for you to respond to them by May 12th, if at all possible. Anything else?

All right, I think we are good to go. Thanks, everyone; it was a great hearing. It is time to vote. Thanks.

[Whereupon, at 12:07 p.m., the hearing was adjourned.]